

MARCH/FY06

FORT BENNING
Georgia

**Army Defense Environmental
Restoration Program
Installation Action Plan**

Final 20 June 2006

Table of Contents	2
Statement of Purpose	4
Acronyms and Abbreviations	5
Installation Information	8
Cleanup Program Summary	10
Installation Restoration Program (IRP)	12
Summary	13
Contamination Assessment	14
IRP Active Sites	20
FBSB-26 Fixed Laundry (Bldg 2500)	21
FBSB-39 Eng Field Main Shop (Bldg 377)	23
FBSB-54 Installation Paint Facilities (8)	25
FBSB-54A Installation Paint Facilities (Site 1)	26
FBSB-54B Installation Paint Facilities (Site 2)	27
FBSB-54C Installation Paint Facilities (Site 3)	28
FBSB-54D Installation Paint Facilities (Site 4)	29
FBSB-54E Installation Paint Facilities (Site 5)	29
FBSB-54F Installation Paint Facilities (Site 6)	30
FBSB-54G Installation Paint Facilities (Site 7)	30
FBSB-54H Installation Paint Facilities (Site 8)	31
FBSB-64 Landfill No. 2	32
FBSB-66 Landfill No. 4	33
FBSB-68 Landfill No. 6	34
FBSB-69 Landfill No. 7	35
FBSB-70 Landfill No. 8	36
FBSB-75 Landfill No. 13	38
FBSB-86 Former Pest Mixing Stor Area	40
FBSB-88 Old Fire Training Area	41
FBSB-93 Install Tank RPR/Veh Maint Shops	42
FBSB-94 Installation Gas Stations	44
FBSB-94C Installation Gas Stations (Site 1)	45
FBSB-94D Installation Gas Stations (Site 2)	46
FBSB-95 Leaking USTs	47
FBSB-99 Ordnance Shop	48
IRP No Further Action (NFA) Sites Summary	50
IRP Schedule	54
IRP Costs	58

Table of Contents

<i>Military Munitions Response Program (MMRP)</i>	60
<i>Summary</i>	61
<i>Contamination Assessment</i>	62
<i>MMRP Active Sites</i>	64
<i>FTBN-001-R-01 – Grenade Munitions Burial Site</i>	65
<i>FTBN-002-R-01 – Grenade and Bayonet Court</i>	66
<i>MMRP Schedule</i>	67
<i>MMRP Costs</i>	68
<i>Community Involvement</i>	69

Statement of Purpose

The purpose of the Installation Action Plan (IAP) is to outline the total multi-year Cleanup Program for an installation. The plan identifies environmental cleanup requirements at each site or area of concern, and proposes a comprehensive, installation-wide approach, with associated costs and schedules, to conduct investigations and necessary remedial actions (RAs).

In an effort to coordinate planning information between the restoration manager, US Army Environmental Center (USAEC), Fort Benning, Installation Management Agency-South East Region (IMA-SERO), executing agencies, and regulatory agencies, an IAP was completed. The IAP is used to track requirements, schedules and tentative budgets for all Army installation cleanup programs.

All site-specific funding and schedule information has been prepared according to projected overall Army funding levels and is, therefore, subject to change.

The following agencies contributed to the formulation and completion of this IAP during a planning workshop held on 29 March 2006:

Company/Installation/Branch

Engineering and Environment, Inc. for USAEC

Fort Benning

Georgia Environmental Protection Department (GAEPD)

IMA-SERO

US Army Corps of Engineers (USACE), Savannah District

USAEC

AEDB-R	Army Environmental Database Restoration
AST	Aboveground Storage Tank
BTEX	Benzene, Toluene, Ethylbenzene, and Xylene
CAP	Corrective Action Plan
CARC	Chemical Agent Resistant Compound
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act of 1980
CMS	Corrective Measures Study
CMI(C)	Corrective Measures Implementation (Construction)
CMI(O)	Corrective Measures Implementation (Operations)
CRP	Community Relations Plan
CS	Confirmatory Sampling
DDT	Dichlorodiphenyltrichloroethane
DEH	Directorate of Engineering and Housing
DERA	Defense Environmental Restoration Account (currently called ER,A)
DERP	Defense Environmental Restoration Program
DD	Decision Document
DES	Design
DRMO	Defense Reutilization and Marketing Office
EOD	Explosive Ordnance Disposal
ER,A	Environmental Restoration, Army (formerly called DERA)
FBSB	Fort Benning as designated in AEDB-R
FS	Feasibility Study
FY	Fiscal Year
GAEPD	Georgia Department of Natural Resources, Environmental Protection Division
HRS2	Hazard Ranking System Score
IAP	Installation Action Plan
IM	Interim Measures
IMA-SERO	Installation Management Agency – South East Region
IMP(C)	Implementation (Construction)
IMP(O)	Implementation (Operation)
INV	Investigation
IRA	Interim Remedial Action
IRP	Installation Restoration Program
ISC	Initial Site Characterization
LTM	Long-term Management
MC	Munitions Constituents
MCL	Maximum Contaminant Level
MEC	Munitions and Explosives of Concern
MMRP	Military Munitions Response Program
MNA	Monitored Natural Attenuation
NFA	No Further Action
NPDWR	National Primary Drinking Water Regulation
NPL	National Priorities List
NSDWR	National Secondary Drinking Water Regulation
OMA	Operations and Maintenance – Army

PA	Preliminary Assessment
PAH	Polycyclic Aromatic Hydrocarbons
PCB	Polychlorinated Biphenyls
POL	Petroleum, Oil and Lubricants
POM	Program, Operation, Management
PRG	Preliminary Remediation Goals
RA	Remedial Action
RAC	Risk Assessment Code
RA(C)	Remedial Action - Construction
RA(O)	Remedial Action - Operation
RAB	Restoration Advisory Board
RBC	Risk-based concentrations
RC	Response Complete
RCRA	Resource Conservation and Recovery Act
RD	Remedial Design
REM	Removal
RFA	RCRA Facility Assessment
RFI	RCRA Facility Investigation
RI	Remedial Investigation
RIP	Remedy in Place
ROD	Record of Decision
RRSE	Relative Risk Site Evaluation
S&R	Supervision and Remediation
SI	Site Inspection
SVE	Soil Vapor Extraction
SVOC	Semi Volatile Organic Compounds
SWMU	Solid Waste Management Unit
TCE	Trichloroethylene
TRADOC	Training & Doctrine Command
USACE	United States Army Corps of Engineers
USACHPPM	United States Army Center for Health Promotion and Preventive Medicine (formerly called USAEHA)
USAEC	United States Army Environmental Center (formerly called USATHAMA)
USAEHA	United States Army Environmental Hygiene Agency (currently called USACHPPM)
USAIS	US Army Infantry School
USEPA	United States Environmental Protection Agency
UST	Underground Storage Tank
UTL	Upper Tolerance Limit
UXO	Unexploded Ordnance
VOC	Volatile Organic Compounds

Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) and Resource Conservation and Recovery Act (RCRA) Acronym Conversions

CERCLA

Preliminary Assessment (PA)

=

RCRA

RCRA Facility Assessment (RFA)

Site Inspection (SI)

=

Confirmation Sampling (CS)

Remedial Investigation/
Feasibility Study (RI/FS)

=

RCRA Facility Investigation/Corrective
Measures Study (RFI/CMS)

Remedial Design (RD)

=

Design (DES)

Remedial Action (Construction)
(Construction) RA(C)

=

Corrective Measures Implementation
(CMI(C))

Remedial Action (Operation)
(RA(O))

=

Corrective Measures Implementation
(Operation) (CMI(O))

Long-term Management (LTM)

=

Long-term Management (LTM)

Interim Remedial Action (IRA)

=

Interim Measure (IM)

CERCLA and RCRA Underground Storage Tank (UST) Acronym Conversions

CERCLA

Preliminary Assessment (PA)

=

RCRA UST

Initial Site Characterization (ISC)

Remedial Investigation (RI)

=

Investigation (INV)

Feasibility Study (FS)

=

Corrective Action Plan (CAP)

Remedial Design (RD)

=

Design (DES)

Remedial Action (Construction)
(RA(C))

=

Implementation (Construction) (IMP(C))

Remedial Action (Operation)
(RA(O))

=

Implementation (Operations) (IMP(O))

Long-term Management (LTM)

=

Long-term Management (LTM)

Interim Remedial Action (IRA)

=

Interim Remedial Action (IRA)

Installation Locale: Fort Benning is situated in the western central portion of the State of Georgia, lying on the southern border of the city of Columbus, the second largest city in the state. Part of the reservation lies across the Chattahoochee River which forms the Georgia-Alabama border. It occupies an area of approximately 182,000 acres of which approximately 12,000 acres are in Alabama. Stretching about 20 miles north-south and east-west, Fort Benning covers three counties - Muscogee and Chattahoochee in Georgia and Russell in Alabama.

Installation Mission: Fort Benning is an active US Army facility under the jurisdiction of the Training and Doctrine Command (TRADOC). The Main Post area of Fort Benning lies approximately eight miles southwest of the business district of Columbus, Georgia. The installation's primary mission is the preparation and training of combat infantry soldiers. This mission is accomplished by the US Army Infantry School (USAIS), and includes the training of combat leaders, both commissioned and noncommissioned officers, of all ranks.

Lead Organization: IMA-SERO

Lead Executing Agency:

Investigative and RA Phases - USACE South Atlantic Division, Savannah District.

Regulatory Participation

Federal: US Environmental Protection Agency (USEPA) Region IV, Albany, GA Branch

State: GAEPD

National Priorities List (NPL) Status - Not on the National Priorities List.

Installation Restoration Advisory Board (RAB)/Technical Review Committee

/Technical Assistance for Public Participation Status: In February 1995 Fort Benning initiated a Community Relations Plan (CRP), to provide the public with the latest information concerning installation environmental issues of concern. Additionally the CRP was implemented to improve lines of communication between Fort Benning and the residents of Columbus and Phenix City.

As part of the CRP, residents of the Fort Benning and Columbus/Phenix City communities were asked if they were interested in having a RAB established, or in being selected as a member of a RAB. After all the responses were reviewed and the CRP was completed it was determined that there was not enough sustainable community interest in creating a Fort Benning RAB. Respondents repeatedly claimed that they trusted Fort Benning officials and the US Army to do what was necessary in cleaning up environmental contamination.

The CRP was updated in October 1997, January 2000, April 2004, and more recently in January 2006. Each time the public was queried concerning whether or not there was sufficient community interest in forming a RAB. The overall judgment was that there was still not enough local community interest in forming a RAB. In 2008 the CRP will be updated again. If the local community indicates an interest in establishing a RAB, one will be formed.

Installation Program Summaries

IRP

Primary Contaminants of Concern: Gasoline (Benzene, Toluene, Ethylbenzene and Xylene [BTEX]), Paint, Trichloroethylene (TCE), Leachate

Affected Media of Concern: Soil, Groundwater, Surface Water, Sediment, Air

Estimated Date for Remedy-In-Place (RIP)/Response Complete (RC): 2007/2011

Funding to date (up to FY05): \$32,211,500

Current year funding (FY06): \$963,000

Cost-to-Complete (FY07+): \$4,406,000

MMRP

Primary Contaminants of Concern: Metals, Explosives, Unexploded Ordnance (UXO)

Affected Media of Concern: Soil

Estimated Date for RC: 2014

Funding to date (up to FY05): \$417,400

Current year funding (FY06): \$0

Cost-to-Complete (FY07+): \$1,186,000

Cleanup Program Summary

Installation Historic Activity

Fort Benning is an active US Army facility under the jurisdiction of TRADOC. The Main Post area of Fort Benning lies approximately eight miles southwest of the business district of Columbus, Georgia. The installation's primary mission is the preparation and training of combat infantry soldiers. This mission is accomplished by the USAIS, and includes the training of combat leaders, both commissioned and noncommissioned officers, of all ranks.

Fort Benning, originally known as Camp Benning, was established in September 1918 as a temporary facility named in honor of a local Confederate hero, General Henry Lewis Benning. It was selected as the site for the new USAIS when the infantry training centers located at Fort Sill, Oklahoma, and Camps Perry and Hancock, Georgia, were closed.

In June 1919, the US Army purchased a large plantation from its owner, Arthur Bussey, and established headquarters in the family residence, which was known as Riverside. With the construction of new facilities and the relocation of the US Army Infantry Board from Fort Leavenworth, Kansas, Camp Benning began to grow. In 1922, Camp Benning achieved permanent military status and was consequently redesignated as Fort Benning and has been in continuous operation since that time.

Major troop units stationed at Fort Benning include the 3rd Brigade, 3rd Infantry Division, and the 75th Ranger Regiment.

Although Fort Benning's Restoration program has been active for many years, limited funding for restoration adversely impacted our ability to fund restoration projects in the early 1990s. In August of 1993, Headquarters TRADOC funded a Defense Environmental Restoration Account (DERA) contract position to execute the IRP; to resolve many of Fort Benning's environmental problems.

The 1982 Installation Assessment and Hazard Ranking System Scoring (HRS2) found that Fort Benning's solid waste management units (SWMUs) cumulatively pose little health/safety threat or threat to the environment. Certain individual sites, however, pose greater health threats. For example, long-term exposure to the Former Pesticide Mixing/Storage Facility may have resulted in an elevated cancer risk to workers.

In 1994 US Army Center for Health Promotion and Preventive Medicine (USACHPPM) conducted a RCRA Facility Assessment of the installation. In 1995, the installation entered into a RCRA Part B permit with the state of Georgia. All of the identified SWMUs were listed in the part B permit. In general, most SWMUs require no further RA, though many require continued monitoring. Fort Benning's Defense Environmental Restoration Program (DERP) has already addressed many of its identified cleanup sites. Nonetheless, cleanup actions will continue until 2011 and possibly longer, depending on requirements presented by the State of Georgia.

Cleanup Program Summary

IRP

- Progress to Date: RCRA Facility Investigations (RFIs) have been completed or are underway for all sites.
- Future Plan of Action: No Further Action (NFA) or Corrective Action Plan (CAP) with Monitored Natural Attenuation (MNA).

MMRP

- Progress to Date: Preliminary Assessment (PA) completed at all sites. A Site Investigation (SI) has been completed for FTBN-001-R-01 – Grenade Munitions Burial Site. An extended anomaly investigation has been completed for FTBN-002-R-01-Grenade and Bayonet Court.
- Future Plan of Action: The installation plans to complete RI/FS for FTBN-001-R-01 by 2008 and execute follow on phases/actions as required. Since the results of the expanded SI failed to detect any evidence of MEC or MC at FTBN-002-R-01, a NFA will be requested for the entire 25 acre Grenade and Bayonet Court site. No LTM is expected.

FORT BENNING

Installation Restoration Program

Total Army Environmental Database-Restoration (AEDB-R) Sites/RC Sites: 43/28

Different Site Types

1 Fire/Crash Training Area
23 Landfills
1 Surface Disposal Area
5 Spill Site Areas
3 Underground Storage Tanks
8 Contaminated Buildings
2 Contaminated Sediments

Most Widespread Contaminants of Concern:

Gasoline (BTEX), Paint, TCE, Leachate

Media of Concern: Soil, Groundwater, Surface Water, Sediment, Air

Completed Removal (REM)/Interim Remedial Action (IRA)/RA:

- IRA and CMI(C) at FBSB-75
- REM - FY97 Soil Removal (FBSB-86)
- IMP(C) at FBSB-95, 96
- REM – FY04 Soil Removal (FBSB-99)
- REM – FY04 Soil and Drum Removal (FBSB-97)

Total IRP Funding

Prior years (up to FY05): \$32,211.5K
Current Year Funding (FY06):..... \$963.0K
Future Requirements (FY07+):.... \$4,406.0K
Total: **\$37,580.5K**

Duration of IRP

Year of IRP Inception: 1982
Year of IRP RIP/RC: 2007/2011
Year of IRP Completion including Long-Term Management (LTM): 2011

IRP Contamination Assessment

IRP Contamination Assessment Overview

In early surveys, Fort Benning considered the landfills to be of most concern. The Army Environmental Hygiene Agency (USAEHA), began surveying the landfills at Fort Benning for soil and groundwater contamination in 1986. Today, all of Fort Benning's landfills, except those that are newly discovered, have been evaluated.

Fort Benning's groundwater problems are minor. Notably, all contamination is restricted to areas on post; it is highly unlikely that contaminants will migrate offpost. Furthermore, because Fort Benning is a large installation (~182,000 acres), groundwater resources are enormous. The areas of contamination currently present will not significantly affect potential usage of groundwater on the installation in the future.

In general, areas of contamination at Fort Benning are small and are best remediated through simple removals. 211 USTs and surrounding contaminated soil have been removed. In the future, the DERP may begin addressing lead and UXO contamination on closed and inactive firing and demolition ranges. At the Pesticide Mixing and Storage Facility, cleanup of pesticide contamination has been accomplished through simple excavation and incineration off-post.

In general, no significant contamination exists from landfill activities with the following exceptions. The aquifer under Landfill 13 is contaminated with TCE and other contaminants. A CAP for this site has been submitted to and accepted by GAEPD. Other Fort Benning landfills, including Landfills 6, 7, and 8 have been investigated, and may require corrective action, erosion control, and LTM.

Releases of gasoline and related fuels/volatile organic compounds (VOCs) have caused the majority of Fort Benning's groundwater problems. The aquifer under the Old Fire Training area is contaminated with fuels released during training exercises in the 1960s and 1970s. Cleanup of groundwater contamination at leaking UST sites is also a high priority. Several former gas station sites such as building 3763 may require MNA as a cleanup strategy. The Main Mall Gasoline Station was successfully cleaned up using air sparging and soil vapor extraction.

In general, most SWMUs require no further RA, though some require MNA and LTM. Fort Benning's DERP has already addressed many of its identified cleanup sites. Nonetheless, cleanup actions will continue until 2011 and possibly longer, depending on requirements presented by the State of Georgia.

Regulatory Status

- Not on the NPL.
- Corrective Action Permit issued by GAEPD in FY 05.
- RCRA Facility Assessment (RFA) conducted 4th Qtr FY 95 - is included in new permit in the form of a list of specific SWMUs.

IRP Contamination Assessment

Current Cleanup Program Activity

CAPs are being written for FBSB-26 (Fixed Laundry Facility), FBSB-64 (Landfill 2), FBSB-99 (Ordnance Shop), FBSB-68 (Landfill 6), FBSB-88 (Old Fire Training Area), FBSB-70 (Landfill 8), and FBSB-93 (Tank Automotive Repair Shop).

Free product recovery will continue at FBSB-94 (Gas Station at Bldg 3763), FBSB-95 (UST at Bldg 9060) and FBSB-93 (Tank Automotive Repair Shop).

Description of Major IRP Concerns

N/A

IRP Cleanup Exit Strategy

Sites with contaminated soils that exceed the soil regulatory screening levels will have the soil excavated, removed and replaced with clean soil. Sites with groundwater contamination will undergo Risk Assessments (when no maximum contaminant level [MCL] has been established) to determine if corrective action is required. If corrective action is required a CAP recommending MNA will be submitted to the state for approval.

Previous Studies

1977

- USAEHA Landfill Study No. 26-0026-78, Fort Benning, Georgia, (Landfill 13) 5 August 1977.

1979

- DEH Draft Environmental Impact Statement: On-going Siting and Mission Activities. US Army Infantry Center, Fort Benning, Georgia, 1979.

1982

- Installation Assessment of Fort Benning, Georgia. Report No. 307. Prepared for USATHAMA by Environmental Science and Engineering, July 1982.

1986

- USAEHA Geohydrologic Study No. 38-26-0833-87. Landfills 2 and 21, Fort Benning, Georgia, 1986.
- USAEHA Geohydrologic Study No. 38-26-0602-87. Landfills 5 and 6, Fort Benning, Georgia, 1986.
- USAEHA Groundwater Study No. 38-26-0905-87. Leachate Detection at Landfills 7 and 8, Fort Benning, Georgia, June 1986.

1987

- USAEHA Geohydrologic Study No. 38-26-0817-88. Landfills 3, 9, 18, and 20, Fort Benning, Georgia, 1987.
- USAEHA Geohydrologic Study No. 38-26-0818-88. Landfills 4 and 10, Fort Benning, Georgia, 1987.
- USAEHA Groundwater Quality Investigations at Closed Landfills 1, 11, 12, 13, 14, 15, 16, 19, and 23, Fort Benning, Georgia, 1987.
- USAEHA Geohydrologic Study No. 38-26-0816-87. Groundwater Quality at Closed Landfills 12, 14, and 15. Fort Benning, Georgia, February 1987.
- USAEHA Geohydrologic Study NO. 38-26-0867-88. Groundwater Quality Investigations at Closed Landfills 16 and 19. Fort Benning, Georgia, May 1987.

1988

- USAEHA Solid Waste Disposal Consultation No. 38-26-0889-88. Evaluation of the Cover System at Landfill No. 13, Fort Benning, Georgia, 8-12 February 1988.
- USAEHA Environmental Operations Review No. 43-21-7035-89. US Army Infantry Center, Fort Benning, Georgia, 1988.
- USAEHA Solid Waste Management Survey No. 38-26-0886-88, Fort Benning, Georgia, 1988.

1989

- RCRA Facility Investigation Work Progression Plan, Phase I, Landfill No. 13, Fort Benning, Georgia. Prepared for the Army Corps of Engineers, Kansas City District by Hunter/ESE Inc., January 1989.

1989, continued

- Site Specific Health and Safety Plan, Landfill No. 13, Fort Benning, Georgia. Prepared for the Savannah District Corps of Engineers by Hunter/ESE, Inc., January 1989.
- Fort Benning Remedial Investigation, Phase I, Technical Memorandum (Landfill 13). Prepared for the US Army Corps of Engineers, Kansas City District, by Environmental Science and Engineering, Inc., July 1989.

1990

- USAEHA Solid Waste Disposal Consultation No. 38-62-0190-91, Fort Benning, Georgia, 1990.
- Bio-Chem Analysts, Inc. Fort Benning Waste Analysis, Contract No. DABT1090P7030, 1990.
- Fort Benning Remedial Investigation, Phase II, Technical Memorandum (Landfill 13). Prepared for the US Army Corps of Engineers, Kansas City District, by Environmental Science and Engineering, Inc., May 1990.
- Fort Benning, Conceptual Design - 35 Design and Corrective Measures Study, Landfill No. 13. Prepared for the Kansas City District Corps of Engineers by Environmental Science and Engineering, Inc., October 1990.
- Corrective Action Plan for Main Mall Service Station, Underground Fuel Storage Tanks, Fort Benning, Georgia, October 1990. US Army Corps of Engineers, Savannah District.

1991

- USAEHA Groundwater Quality Survey No. 38-26-0390-91. Camp Frank D. Merrill, Dahlonga, Georgia, July 1991.
- USAEHA Geohydrologic Study No. 38-26-K969-91, Old Fire Training Area, Fort Benning, Georgia, 1991.
- 100% Specification Submittal for the Closure of Fort Benning Landfill No. 13. Prepared for the US Army Corps of Engineers, Kansas City District, by Environmental Science and Engineering, Inc., July 1991.
- 100% Specification Submittal Operation and Maintenance Manual for the Closure of Fort Benning Landfill No.13. Prepared for the US Army Corps of Engineers, Kansas City District, by Environmental Science and Engineering, Inc., July 1991.
- 100% Submittal Health and Safety Design Analysis for the Closure of Fort Benning Landfill No. 13. Prepared for the US Army Corps of Engineers, Kansas City District, by Environmental Science and Engineering, Inc., July 1991.

1992

- Preliminary Site Inspection For Fort Benning Military Reservation. Prepared for the US Army Corps of Engineers by Advanced Science, Inc., January 1992.

1993

- Final Installation Action Plan (IAP) for Fort Benning, Georgia. Prepared for the Savannah District Corps of Engineers by B & V Waste Science and Technology, Inc., July 29, 1993.

1994

- USAEHA Geohydrologic Study No. 38-26-KW27-94, Old Fire Training Area, Fort Benning, Georgia, 1994
- RCRA Facility Assessment No. 38-26-2650-95, Fort Benning, Georgia, December 1994, USACHPPM.

1995

- RCRA Facility Assessment No. 38-26-3299-95, Fort Benning, Georgia, August 1995, USACHPPM.

1997

- Subsurface Investigation for Relative Risk Ranking, Thirteen Installation Restoration Program (IRP) Sites, Fort Benning Georgia, September 1997, Savannah District USACE.

1998

- Phase I RFI Reports for FY97 SWMU Group, Fort Benning Georgia, December, 1998, Savannah District USACE.

2000

- RFI Reports for FY98 SWMU Group, Fort Benning Georgia, January, 2000, Savannah District USACE.

2001

- RFI Reports for FY01 IRP SWMU Sites, Fort Benning Georgia, September 2002.

2002

- RFI Reports for FY02 IRP SWMU Sites, Fort Benning Georgia, September 2002.

2003

- Fort Benning Baseline Risk Assessment Installation Work Plan and Supportive Documents, Fort Benning Georgia, Revised 28 July 2003.

2004

- Phase III RCRA RFI for the Installation Tank Repair Compound, Vehicle Maintenance Shop Compound and Installation Gas Station, Building 3763, March 2004.
- Revised Final Work Plan, Interim Measures Removal Action for SWMU FBSB-97 Abandoned Drum Disposal Site, Fort Benning, Georgia, March 18, 2004.
- Corrective Action Plan for SWMU FBSB-39, Building 377, Engineering Field Maintenance Shop, Fort Benning, Georgia, May 2004.

2005

- Supplemental RFI Report and Baseline Risk Assessment for the Installation Tank Repair/Vehicle Maintenance Shop Compound, SWMUs FTBN-34O, FTBN-54C and FBSB-93, February 2005.
- Corrective Action Plan for SWMU –88, Old Fire Training Area, dated December 2004.

2005, continued

- Final Site Inspection Report, Military Munitions Response Program, Fort Benning GA, April, 2005.
- Final Construction Summary Report, Maintenance Activities, Landfill 8 Fort Benning, Georgia, February 2005
- Final Workplan, Extended Anomaly Investigations, MMRP, Fort Benning, December 2005

2006

- Corrective Action Plan, Fourth Semi-Annual Progress Report for SWMU FBSB-39, Building 377, Engineering Field Maintenance Shop, Fort Benning Georgia, dated December 2005.

FORT BENNING

Installation Restoration Program Site Descriptions

FBSB-26

Fixed Laundry (Bldg 2500)

SITE DESCRIPTION

Buildings 2500 (SWMU 26C) and 2501 (SWMU 26A) were located at the intersection of Indianhead Road and Marchant Street on Main Post. The buildings were demolished in January of 1994. Operation at the facility ceased in 1984. The area is now covered with asphalt and grass and is approximately 250 ft x 250 ft.

This site was first mentioned in the 1982 Installation Assessment of Fort Benning. Unfortunately, this document did not address the potential for past contamination at the site. The single reference to this facility is on page 2-2, "Bldg. 2500 houses a laundry in which no dry cleaning is performed." Additionally, the study gave no information relating to how the site was evaluated.

According to installation personnel interviewed, all installation laundry and dry cleaning was processed at this site from the 1940s until 1984. Dry cleaning solvents previously used at the facility were stored in 20 to 50-gallon tanks inside the building. These tanks were removed when the operations ceased in 1984. No spills at the facility have been reported.

A site visit by Fort Benning personnel in December of 1993 revealed what appeared to be three pipes coming out of the ground which may indicate the presence of USTs at the site. A search of as-built construction drawings failed to confirm the presence of USTs. A geophysical survey conducted in 1999 failed to detect any USTs or associated piping.

FBSB-64 (Landfill 2) and FBSB-99 are both upgradient of the Fixed Laundry Facility and may be contributing to the contamination detected at this site. Additionally, there are three other non-Environmental Restoration, Army (ER,A) SWMUs upgradient of both Landfill 2 and the Fixed Laundry Facility which may be contributing to the contamination detected at this site. The installation decided to conduct a Full RFI in FY98 using Operations and Maintenance – Army (OMA) funds for this phase. Results of the RFI indicated groundwater contamination in the form of chlorinated solvents in several upgradient wells. Because of the proximity of this site to FBSB-64, Closed Landfill 2, both sites will require additional investigation to determine the actual source of the contamination.

Similar groundwater contaminants were detected in wells at FBSB-64 and FBSB-99. The supplemental RFI field work was completed in 2005. The supplemental RFI and

STATUS

REGULATORY DRIVER: RCRA C

RRSE: High

CONTAMINANTS OF CONCERN:
TCE

MEDIA OF CONCERN:
Groundwater

Phases	Start	End
RFA	198201	198207
CS.....	199705	199710
RFI/CMS.....	199801	200509
CMI(C)	200507	200509
CMI(O)	200509	200909
LTM	200910	201110

RIP DATE: 200509

RC DATE: 200909

FBSB-26

Fixed Laundry (Bldg 2500), cont.

Baseline Risk Assessment Report was submitted to GAEPD. GAEPD reviewed the report; provided comments, and a response to these comments will be submitted to GAEPD in April 2006. A CAP was submitted to GAEPD, has been reviewed, and comments provided. A response to these comments will also be submitted to GAEPD in April 2006.

CLEANUP STRATEGY

The selected corrective action was a limited in-situ remediation using a hydrogen release compound followed by MNA. Semi-annual long-term monitoring will be conducted for 12 ground water monitoring wells until FY12.

Limited land use controls restricting the use of ground water for drinking purposes will be implemented until remediation goals are achieved.

FBSB-39

Eng Field Main Shop (BLDG 377)

SITE DESCRIPTION

Building 377 is a very large L-shaped building located at the west end of Tenth Division Road on Main Post. Hazardous waste storage and operational practices were changed in 1986 to meet new environmental regulatory requirements. Based on practices prior to 1986, spills of diesel fuel, mogas, antifreeze, waste oil, polychlorinated biphenyls (PCBs) and cleaning solvents may have occurred. The asphalt at the site is in very poor physical condition, which may be the result of spills.

The July 1993 draft of Fort Benning's IAP reported the following information: According to the shop foreman, the site has been used for vehicle maintenance for at least 30 years. Two 10,000-gallon capacity USTs containing diesel and mogas were removed from the northeast corner of the site in June 1993.. All wastes are presently sent to the post boiler plant for energy recovery. Visual staining was noted in the vicinity of the waste fuel area as well as throughout the vehicle parking lot. Though the 1982 preliminary site assessment addressed all sites at Fort Benning generating hazardous waste, the study was generalized and did not address specific sites. Building 377 was never mentioned by name though the study generally evaluated petroleum, oil and lubricant (POL) handling facilities.

A RFI was conducted in FY01. Results indicated that petroleum related groundwater contamination exists in the vicinity of the washrack/UST adjacent to Building 377. Pesticide contamination was also detected in the soil near Building 377 above risk based levels. Both Arsenic and Thallium were detected in the soils also above background levels.

In FY01, additional groundwater monitoring wells were installed and sampled to delineate upgradient and downgradient groundwater contamination. Additional soil samples were collected to delineate the extent of pesticide contamination in the soil. Results confirmed that pesticides are not a contaminant of concern.

STATUS

REGULATORY DRIVER: RCRA C

RRSE: High

CONTAMINANTS OF CONCERN:
VOCs

MEDIA OF CONCERN:
Groundwater

Phases	Start	End
RFA	198201	198207
CS	199705	199710
RFI/CMS.....	200007	200504
CMI(C).....	200505	200602
CMI(O).....	200603	200809
LTM	200810	200909

RIP DATE: 200603

RC DATE: 200809

FBSB-39

Eng Field Main Shop (Bldg 77), cont.

A supplemental RFI report and a Baseline Risk Assessment were submitted and approved by the GAEPD. A CAP for MNA was submitted and approved by GAEPD.

CLEANUP STRATEGY

The Corrective Action (MNA) being implemented includes semi-annual monitoring of 14 wells. This is the second year of monitoring.

FBSB-54

Installation Paint Facilities (8 sites)

SITE DESCRIPTION

Paint facilities (54A-H) were summarily mentioned in both the 1982 Installation Assessment and the 1992 Preliminary Site Inspection for Fort Benning. However, these documents do not detail individual sites; therefore, information on past disposal practices is limited.

The information presented on the following pages describing the individual sites was collected by a contractor in the development of the 1993 IAP. Fort Benning was also able to include two of the seven sites in the 1994 USAEHA SWMU Investigation. As a result of this SWMU investigation, three sites (FBSB-54A, Bldg 2513; FBSB-54D Bldg 9064; FBSB-54F, Bldg 259) required NFA. Four sites, which were not included in the original SWMU investigation, required further study to determine if a release has occurred.

These sites were included in the IRP because of significant changes in the way paint operations were being conducted on post.

The Site Descriptions for the eight Installation Paint Facilities follow this paragraph.

STATUS

REGULATORY DRIVER: RCRA C

RRSE: High

CONTAMINANTS OF CONCERN:
Metals, SVOCs (PAHs), Pesticides, PCBs

MEDIA OF CONCERN: Soil,
Groundwater

Phases	Start	End
RFA	199106	199201
CS	199705	199710
RFI/CMS	200006	200509
LTM	200610	200709

RC DATE: 200509

FBSB-54A

Installation Paint Facilities (Site 1)

SITE DESCRIPTION

Building 2513 (54A) is located at the intersection of Endl Street and Lavoie Street on Main Post. This site has been used as a paint spray booth since approximately 1965. The paint booth inside this building was used to spray enamel, lacquer, and latex on mock training weapons. The paint booth has been removed. According to military personnel interviewed, no lead-based paint was used at this facility. In addition, no wastes were generated and no spills at the site were reported. No painting had been conducted at the site since early 1992. Due to the fact that paint spraying operations were conducted within an enclosed structure and any waste products generated were not stored or disposed of onsite, it is unlikely that these past operations have impacted the environment. Nonetheless, because of a lack of appropriate documentation concerning past painting practices, this site required further investigation. Additional sampling determined that Arsenic levels were within localized background levels.

This site was issued a NFA by GAEPD in FY05.

STATUS

CONTAMINANTS OF CONCERN: Arsenic

MEDIA OF CONCERN:
Soil

FBSB-54B

Installation Paint Facilities (Site 2)

SITE DESCRIPTION

Building 1751 (54B) is located just northeast of the intersection of Vibbert Avenue and Dilboy Street on Main Post. The paint booth was constructed in the late 70s or early 80s and was demolished under the auspices of the Installation Real Property Master Plan in the mid-1990s (OMA funded). The paint booth was used to apply Chemical Agent Resistant Compound (CARC) paint on vehicles. All waste paint was stored in 55-gallon drums within a bermed concrete storage area until it was sent to Defense Reutilization and Marketing Office (DRMO). According to installation personnel, no spills occurred at the site. Due to the fact that painting operations were conducted within an enclosed structure and any waste products generated were properly stored, it is unlikely that these past operations impacted the environment. Nonetheless, because of a lack of appropriate documentation concerning past painting practices, this site required further investigation. Polycyclic Aromatic Hydrocarbons (PAH) contamination detected in surface soils exceeded risk based screening levels. However, the PAH contamination is not believed to be associated with the operation of the paint facility. Arsenic was also detected in the soils above both background and risk based screening levels. These contaminants required further delineation. Additional sampling to determine if Arsenic levels fall within localized background levels was completed in FY02.

A Supplemental RFI report was submitted to GAEPD. GAEPD reviewed the report and requested additional soil samples. The additional samples were collected and a revised Supplemental RFI report was submitted to GAEPD. The revised Supplemental RFI was reviewed again by GAEPD and comments were provided. A response to the comments and a revised report were submitted in January of 2006.

CLEANUP STRATEGY

This site was issued a NFA by GAEPD in FY06. Site closeout and well abandonment of 14 wells at multiple locations (all paint shop sites) is expected in FY07.

STATUS

CONTAMINANTS OF CONCERN: PAHs, Arsenic, Lead

MEDIA OF CONCERN: Soil

FBSB-54C

Installation Paint Facilities (Site 3)

SITE DESCRIPTION

SWMU FBSB-54C is located just southeast of the intersection of 11th Airborne Division Road and 187th Infantry Regiment Street in the Sand Hill area. The site had been used as a CARC paint application booth since before the early 1980s. Past practices did not include using enclosed spray booths for painting activities. Due to the fact that painting operations were conducted within an enclosed structure and any waste products generated are properly stored, it is unlikely that these current operations are impacting the environment. No spills at the site have been reported. This site underwent a RCRA Phase I RFI and Supplemental RFI as part of the investigation of the Tank Automotive Repair Shop (FBSB-93).

Supplemental sampling was conducted to delineate the paint and solvents from the BTEX background contamination.

This site was issued a NFA by GAEPD in FY05.

STATUS

CONTAMINANTS OF CONCERN: Paint

MEDIA OF CONCERN:
Soil

FBSB-54D

Installation Paint Facilities (Site 4)

SITE DESCRIPTION

Building 9064 (54D) is located approximately 300 feet south of the intersection of Bell Richards Street and Marne Road in the Kelley Hill area. The auto craft center at this site housed a paint booth where enamels were applied to vehicles. No paint was left at the site. No spills were documented at the facility. Due to the fact that paint spraying operations were conducted within an enclosed structure and any waste products generated were not stored/disposed onsite, it is unlikely that past operations impacted the environment. Nonetheless, because of the lack of appropriate documentation concerning past painting practices, this site required further investigation. This site underwent a RFI.

This site was issued a NFA by GAEPD in FY05.

STATUS

CONTAMINANTS OF CONCERN: Thallium

MEDIA OF CONCERN:
Soil

FBSB-54E

Installation Paint Facilities (Site 5)

SITE DESCRIPTION

Building 2843 (54E) is located approximately 1100 feet west of the intersection of Sightseeing Road and Way Street on Main Post. The auto craft center at this site housed a paint booth where enamels were applied to vehicles. No paint was left at the site. No spills at the facility were reported. Due to the fact that paint spraying operations were conducted within an enclosed structure and any waste products generated were not stored/disposed onsite, it is unlikely that past operations impacted the environment. Arsenic and Thallium did not exceed background levels. This site underwent a RFI.

This site was issued a NFA by GAEPD in FY05.

STATUS

CONTAMINANTS OF CONCERN: Arsenic, Thallium

MEDIA OF CONCERN:
Soil

FBSB-54F

Installation Paint Facilities (Site 6)

SITE DESCRIPTION

Building 259 is located approximately 200 feet west of the intersection of Vibbert Avenue and Edwards Street on Main Post. Operations at this furniture shop began in 1981. According to installation personnel, spray stains and lacquers were used in the indoor paint booth at this facility. Before the installation recycling program was implemented, all waste paint was disposed in a landfill or sent to the boiler plant for energy recovery. Presently, all waste paint is placed in 55-gallon drums stored in a bermed concrete storage area and sent to DRMO. No spills at the site have been reported. This site was evaluated in the Dec 1994 USAEHA SWMU Investigation. This site underwent a RFI.

This site was issued a NFA by GAEPD in FY05.

STATUS

CONTAMINANTS OF CONCERN: Paint, Solvents, Paint Sludge

MEDIA OF CONCERN: Soil

FBSB-54G

Installation Paint Facilities (Site 7)

SITE DESCRIPTION

Building 1634 (54G) is located approximately 800 feet northeast of the intersection of Burr Street and Edwards Street on Main Post. This Directorate of Logistics' paint booth was in operation before 1973. According to installation personnel, before the installation's recycling program was initiated; waste lacquers and enamels were poured into floor drains which discharge into the storm sewer system. No spills at the site have been reported. TCE was detected in soil and groundwater. The source of this contamination is FBSB-099 (Ordnance Shop). This site is collocated with FBSB-99 and has been investigated concurrently.

This site underwent a RCRA Phase I RFI and Supplemental RFI as part of the investigation of FBSB-99.

Soil and ground water samples were collected. The TCE detected in the ground water can be attributed to FBSB-99. No paint related constituents were detected.

STATUS

CONTAMINANTS OF CONCERN: TCE

MEDIA OF CONCERN: Soil

CLEANUP STRATEGY

The Installation has recommended NFA.

FBSB-54H

Installation Paint Facilities (Site 8)

SITE DESCRIPTION

The Aparri Heliport facility (Building 4232-54H) is located on Jamestown Road near the Aparri Heliport. This site, which consists of a metal shed on a concrete pad, was used in the past for the open air application of CARC paint. This site was evaluated during the 1994 SWMU investigation and surface soil samples were analyzed for organic compounds and metal analytes. The results indicated that the slightly elevated levels of Lead, Chromium, and Titanium which were present did not pose a threat to human health or the environment. The RFI indicated that Thallium was detected above background levels in the soils. Lead, Chromium and Nickel exceeded background and MCLs in groundwater. Vanadium exceeded risk-based concentrations (RBC) and background levels in groundwater. Titanium exceeds RBC levels in groundwater. Supplemental groundwater sampling was conducted to determine background levels of Titanium. The previously detected levels of titanium were related to groundwater turbidity.

Additional soil sampling determined Thallium levels are within localized background levels

This site was issued a NFA by GAEPD in FY05.

STATUS

CONTAMINANTS OF CONCERN: Metals

MEDIA OF CONCERN:
Soil, Groundwater

FBSB-64

Landfill No. 2

SITE DESCRIPTION

Landfill #2 is located on Main Post and is bounded by Marchant Street on the north, Burr Street on the south, Riordon Street on the west, and Edward Street on the east. This landfill, encompasses approximately 62 acres, and was operated from 1943 to 1945 using the trench method.

Documentation detailing disposed waste is not available. The USAEHA Geohydrologic Study (No. 38-26-0833-87) prepared for Landfill Nos. 2 and 21 indicated that no groundwater contamination had resulted from past activities. The installation conducted a RFI at this site in FY97 using OMA funding.

Based on the results of the RFI, concentrations of TCE, Lead, Vanadium and Chromium were found in downgradient groundwater monitoring wells in excess of MCLs.

The supplemental RFI and Baseline Risk Assessment Report were submitted to GAEPD. GAEPD reviewed the report; provided comments, and a response to these comments will be submitted to GAEPD in April 2006. A CAP was submitted to GAEPD, has been reviewed, and comments provided. A response to these comments will also be submitted to GAEPD in April 2006.

CLEANUP STRATEGY

The selected corrective action was a limited in-situ remediation using a hydrogen release compound followed by MNA. Semi-annual long-term monitoring will be conducted for six ground water monitoring wells until FY12.

Limited land use controls restricting the use of ground water for drinking purposes will be implemented until remediation goals are achieved.

STATUS

REGULATORY DRIVER: RCRA C

RRSE: Medium

CONTAMINANTS OF CONCERN:
TCE, Lead

MEDIA OF CONCERN:
Groundwater

Phases	Start	End
RFA	199106	199201
CS	199106	199201
RFI/CMS.....	199710	200507
CMI(C).....	200507	200509
CMI(O).....	200509	200909
LTM	200910	201110

RIP DATE: 200509

RC DATE: 200909

FBSB-66 Landfill No. 4

SITE DESCRIPTION

Landfill #4 is located southeast of the intersection of Dixie Road and Alamo Road on Main Post. This landfill was operated as a trench-type landfill from 1950 to 1953 and has an approximate area of 13 acres. Documentation detailing disposed waste at this site is not available. Presently, the area is generally covered with grass, trees, and other vegetation.

Water quality data from a 1987 USAEHA investigation indicated minor degradation of groundwater in the form of iron, manganese and pentachlorophenol. Additional groundwater monitoring at this site failed to detect Pentachlorophenol or any other herbicides.

However the state of Georgia questioned the methods which were used for analysis. GAEPD required a RFI with resampling for all analytes using an approved USEPA analytical method.

Based on three years of sampling and investigations, no groundwater contamination was detected. PAH contamination was detected in soils but was not determined to be a contaminant of concern. Thallium and cadmium both exceeded risk based screening levels and thallium exceeded background levels. Cadmium was not detected in background samples.

Supplemental sampling determined thallium and cadmium are within background levels.

GAEPD issued the installation a NFA for this site in FY05.

CLEANUP STRATEGY

Site closure and well abandonment of nine wells is expected in FY07.

STATUS

REGULATORY DRIVER: RCRA C

RRSE: Medium

CONTAMINANTS OF CONCERN:
Thallium, Cadmium

MEDIA OF CONCERN: Soil

Phases	Start	End
RFA	199106	199201
CS	199106	199201
RFI/CMS.....	200006	200312
LTM	200702	200709

RC DATE: 200312

FBSB-68

Landfill No. 6

SITE DESCRIPTION

Landfill #6 is located in a wooded area one mile south of Main Post and east of Lawson Army Airfield on Dixie Road. This solid waste trench and fill landfill was operated from 1954 to 1958 and covers approximately 14 acres.

The USAEHA Geohydrologic Study (No. 38-26-0602-87) prepared for Landfill No. 5 and 6 detected elevated levels of VOCs and semi volatile organic compounds (SVOCs) in groundwater samples. A 1991 USAEHA investigation concluded that Landfill #6 was not the source of the groundwater contamination in this area. However, supplemental investigations have determined that Landfill #6 is the probable contamination source of some of the downgradient wells.

A RFI report has been submitted to GAEPD. Comments were received and the installation responded to these comments. Supplemental sampling of soil and groundwater were conducted in FY03.

The RFI was performed concurrently with FBSB-88 (Old Fire Training Area), and FBSB-67 (Closed Landfill 5), which are in close proximity to this site. GAEPD requested additional delineation for FBSB-68. A supplemental RFI was performed in 2003. The Supplemental RFI and Baseline Risk Assessment Report was submitted to GAEPD and comments received. GAEPD requested the collection of additional soil samples plus an additional monitoring well be installed in order to provide additional delineation.

This additional work was performed in the fall of 2005. The Supplemental RFI and Baseline Risk Assessment Report were submitted to GAEPD in March of 2006. A CAP has also been submitted to GAEPD in April of 2006.

CLEANUP STRATEGY

MNA with semi-annual GW monitoring of 12 wells.

STATUS

REGULATORY DRIVER: RCRA C

RRSE: Medium

CONTAMINANTS OF CONCERN:
VOCs, SVOCs

MEDIA OF CONCERN: Soil,
Groundwater

Phases	Start	End
RFA	198608	199201
CS	198608	199201
RFI/CMS.....	200201	200504
CMI(C).....	200505	200509
CMI(O).....	200609	201109
LTM	201110	201209

RIP DATE: 200609

RC DATE: 201109

FBSB-69

Landfill No. 7

SITE DESCRIPTION

Landfill #7 is located at the intersection of Dixie Road and Jecelin Road and occupies 29 acres. This trench and cover landfill was operated from 1958 to 1970. The northern boundary of the landfill joins the Laundry Creek. The eastern boundary adjoins a tributary wetland of Laundry Creek. The site does not have a constructed cap. The site is currently used as a storage area for yard waste and composting. Household garbage, paper, and other municipal type wastes were placed in the landfill. A geohydrologic study (#38-26-0905-87) prepared by the USAEHA found that the groundwater contamination was well within National Secondary Drinking Water Regulation (NSDWR) standards. However GAEPD in its review of the Fort Benning RFI Work Plan directed that a RFI be conducted at this site. GAEPD expressed concern about releases of barium and toluene. Problems with extensive erosion also need to be addressed at this site. Slopes adjoining Jecelyn Road are undergoing extensive erosion due to lack of vegetation on a sandy soil. Additionally, some boundary areas of the landfill have exposed waste due to erosion. Access to this site is highly restricted and controlled by the use of a locked entry gate. Thick surrounding vegetation also restricts access to this site.

A RFI was completed in FY02. Groundwater sampling results identified benzene and toluene detections. The RFI Report was submitted to GAEPD. The state has reviewed the report and responded with comments. The installation is preparing a response to their comments. A baseline risk assessment was prepared and submitted with the revised RFI report in 2005. NFA was requested.

CLEANUP STRATEGY

GAEPD approved the NFA determination in FY06. The reason for postponement of abandonment of the GW wells in FY08 is to provide monitoring for an adjacent MMRP site.

STATUS

REGULATORY DRIVER: RCRA C

RRSE: High

CONTAMINANTS OF CONCERN:
Metals, Solvents, POL

MEDIA OF CONCERN: Soil,
Sediment, Groundwater, Surface
Water

Phases	Start	End
RFA.....	199106.....	199201
CS	199106.....	199201
RFI/CMS	199908.....	200602
LTM.....	200710.....	200809

RC DATE: 200602

FBSB-70

Landfill No. 8

SITE DESCRIPTION

Landfill #8 is located west of the Veterinary Hospital and occupies 14 acres. The landfill was operated from 1961 to 1966 and was operated as a trench and area fill. The landfill is situated in a potentially sensitive area, as it borders the Chattahoochee River, the primary source of drinking water for Columbus and other downstream communities. The slope of the landfill is within 50 meters of the east bank of the river. Documentation detailing waste disposed at this site is not available. The landfill has eroded to the point that garbage is recognizable on the surface and slope of the landfill. Landfill 8 is listed in the installation RCRA Part B permit along with all other Fort Benning SWMUs.

The surface and slopes of this landfill have deteriorated significantly and will require maintenance and repair. Although various contaminants were detected in soil and groundwater, all were below their respective screening levels.

A geophysical study was conducted and the monitoring of inclinometers for three years (1999-2002) has indicated that the landfill is relatively stable with little movement indicated.

A June 1986 geohydrologic study by USAEHA (#38-26-0905-87) recommended that measures to control erosion be taken at the landfill as well as groundwater monitoring. Limited groundwater monitoring by USAEHA revealed that levels of contamination were well within NSDWR levels. A RFI was conducted in FY99 and results were submitted to GAEPD in FY00.

The RFI Report was approved by GAEPD and called for continued groundwater monitoring and slope stabilization monitoring. The pesticide storage formulation area, which is adjacent to Landfill 8, was a continuing source of pesticide contamination in the groundwater. A contaminated soil removal was completed in 1997 at the pesticide storage formulation area and this has reduced the levels of pesticide contamination in the Landfill 8 groundwater. The primary groundwater contaminant was VOCs, which were below MCLs but above screening levels. VOCs were detected in only one of ten monitoring wells.

STATUS

REGULATORY DRIVER: RCRA C

RRSE: High

CONTAMINANTS OF CONCERN:
VOCs, Pesticides (associated with Pesticide Area)

MEDIA OF CONCERN: Soil,
Sediment, Groundwater

Phases	Start	End
RFA	199106	199201
CS	199106	199201
RFI/CMS	199908	200308
CMI(C)	200510	200609
CMI(O)	200610	201109

RIP DATE: 200610

RC DATE: 201109

FBSB-70

Landfill No. 8, cont.

Access to this site is highly restricted and controlled. A locked fence gate prevents access, and the landfill is situated on a high elevation bluff, bounded by a river. The locked gate is the only access to the site. In FY03, steps were taken to control surface erosion, establish a vegetative cover on the landfill, and direct the flow of surface water runoff on the landfill.

A Supplemental RFI sampling of soil, sediment, surface water and groundwater was conducted in FY03. The supplemental RFI Report and Baseline Risk Assessment were submitted in FY05. A request for NFA was submitted. Review and comments from GAEPD is expected during FY06.

CLEANUP STRATEGY

NFA has been recommended.

FBSB-75 Landfill No. 13

SITE DESCRIPTION

Landfill 13 is an 85 acre landfill located near the intersection of Marne Road and Cusseta Road. Operations at this landfill were initiated in 1965 and continued until 1983. This landfill was operated as an area fill sanitary landfill and was closed according to its permit. Documentation detailing disposed waste at this site is not available though it is thought that household garbage and industrial wastes (solvents) may have been discarded here.

A December 1987 groundwater study by USAEHA (#38-26-0000875-88) indicated groundwater contamination at the site, recommending that a RFI be performed. A RFI was prepared and submitted to GAEPD in 1991. The recommendation from the RFI was preparation of a CAP. The CAP recommended that a RCRA cap was needed at Landfill 13 to contain the soil contamination unit. No action was recommended to specifically address groundwater contamination. A RCRA composite cap was constructed on the landfill in 1995 and completed in 1996. A RFI to investigate groundwater contamination was completed in May of 1997. The recommendation from the RFI was to monitor the groundwater three to five years to evaluate performance of the RCRA cap with respect to impacts to groundwater contamination. GAEPD's comments required preparation and submittal of a CAP.

Groundwater monitoring since 1998 has consistently shown a low level of two contaminants (Vinyl Chloride and Benzene). Both contaminants slightly exceed MCLs in two wells, out of a total of 24 wells. This plume is localized in an area of less than an acre. Surface water sampling has not detected any contaminants above regulatory criteria since start of the monitoring program.

The installation has conducted a risk assessment and submitted a Risk Assessment Report to GAEPD. The report was approved by GAEPD and recommended continued groundwater monitoring. Results of the risk assessment were used in preparation of the groundwater CAP.

STATUS

REGULATORY DRIVER: RCRA C

RRSE: High

CONTAMINANTS OF CONCERN:
VOCs

MEDIA OF CONCERN:
Groundwater

Phases	Start	End
RFA	199106	199201
CS	199106	199201
RFI/CMS.....	199705	200502
IRA	199301	199606
CMI(C).....	200502	200509
LTM	200509	201110

RC DATE: 200509

FBSB-75

Landfill No. 13, cont.

Runoff from the major catchment areas is controlled by berms and rock flumes. In FY03 an engineering study was conducted to determine the sources and extent of landfill seepage areas, subsidence of landfill cap, and integrity of synthetic liner and methane vents. While the results of the study showed no current impact to the integrity of the cap, the study recommended maintenance actions to prevent any future degradation of the cap. These recommendations will be implemented in FY06. Semi-annual groundwater monitoring was completed in FY04. Annual ground water monitoring will continue through FY10.

CLEANUP STRATEGY

A CAP has been submitted and approved by GAEPD. Annual performance monitoring will continue through FY10. Long-term maintenance of the landfill cap and fencing will continue.

FBSB-86

Former Pest Mixing Storage Area (Bldg 1396)

SITE DESCRIPTION

The former Pesticide Mixing/Storage Area is located west of the intersection of Anderson Avenue and Tenth Division Road on Main Post. The site was the central location for pesticide mixing and storage for all of Fort Benning. As early as 1945, pesticides including Dichlorodiphenyl-trichloroethane (DDT), Mirex, Chlordane and Lindane were mixed at this site. According to installation personnel, mixing at this facility was discontinued in the late 1980s though pesticides were stored inside the building until as late as 1993. Sampling and analysis efforts conducted by USAEHA and ABB Environmental Services indicated elevated concentrations of pesticides in the surficial soils surrounding Building 1396. There were three contaminated buildings on-site, which were demolished and removed. The contaminated soil was excavated and removed and chemically oxidized at a treatment, storage and disposal facility. Clean soil was used to replace the contaminated soil. A small amount of contaminated soil had to be left in place under a building foundation (Building 267). Should the building be demolished, this amount of pesticides will be removed. Groundwater monitoring has indicated that pesticides are still present in the groundwater at levels below regulatory criteria. A CAP and Baseline Risk Assessment has been submitted to GAEPD and approved. The selected corrective action has been implemented. Currently, groundwater monitoring in support of the corrective action is required by GAEPD.

STATUS

REGULATORY DRIVER: RCRA C

RRSE: Medium

CONTAMINANTS OF CONCERN:
Pesticides

MEDIA OF CONCERN: Soil,
Groundwater

Phases	Start	End
RFA	198909	199003
CS	198909	199003
RFI/CMS.....	199003	199212
DES	199502	199606
CMI(C).....	199702	199812
LTM	199901	201109

RC DATE: 199901

CLEANUP STRATEGY

LTM, to include ground water monitoring of five wells will continue until FY10. After FY10 the ground water monitoring and land-use controls will be reevaluated. Site close out activities will include abandonment of five wells.

FBSB-88

Old Fire Training Area

SITE DESCRIPTION

The Old Fire Training Area is located in between Landfill 7 and Landfills 5/6, northeast of Lawson Army Airfield. The site was closed as a firefighting training area prior to 1986. The SWMU was a pit used to train fire-fighting personnel to extinguish fires. Fuel was placed in the pit and ignited to provide a source of fire. The site is approximately one acre in size and consisted of a man-made depression surrounded by a small berm. The entire area is surrounded by a fence. There was no concrete basin or impermeable wall to contain unburned fuel.

USAEHA completed a SWMU inspection of this site in July 1994. The results of this study found BTEX in the soil and ground water.

A RFI was completed in FY02. Results of the RFI indicated limited metals and POL contamination in the immediate vicinity of the Fire Training Pit. A risk assessment was prepared and submitted to GAEPD in 2004 and is currently under review.

A CAP for MNA was submitted to GAEPD in 2005 and has been approved. The first CAP Progress Report has also been submitted to GAEPD. The progress report has been reviewed and comments have been received.

CLEANUP STRATEGY

The CAP has been implemented. Monitoring for MNA (13 wells semi-annual) is scheduled through FY07. Site close-out and well abandonment is scheduled in FY08.

STATUS

REGULATORY DRIVER: RCRA C

RRSE: High

CONTAMINANTS OF CONCERN:
POL, Metals

MEDIA OF CONCERN: Soil,
Groundwater

Phases	Start	End
RFA	198608	199201
CS	198608	199201
RFI/CMS.....	200201	200506
CMI(C).....	200507	200509
CMI(O).....	200509	200809
LTM	200902	200909

RIP DATE: 200509

RC DATE: 200809

FBSB-93

Installation Tank Rpr/Veh Maint Shops

SITE DESCRIPTION

The Installation Tank Repair/Vehicle Maintenance Shop is located approximately 400 feet east of the intersection of 11th Airborne Division Road and 187th Infantry Regiment Street in the Sand Hill area. The site is approximately two to three acres fenced. In addition to building 3716, the area contains seven separate maintenance shops, an abandoned washrack, an abandoned oil change/grease rack, the foundation of a former large vehicle maintenance shop and unpaved military equipment park.

The visual staining of the concrete and unpaved soil gravel areas, along with stressed vegetation are indication of releases from past disposal practices.

In 1993, a contractor conducted personnel interviews in preparation for the 1993 IAP update. According to installation personnel, repair of combat vehicles and heavy construction equipment have occurred at this site since approximately 1943. Mogas and diesel fuel are stored in two 600-gallon capacity ASTs; hydraulic fluid, oils, thinners, and solvents are stored in 55-gallon drums. Prior to implementation of the installation waste recycling program, waste segregation and proper disposal methods were not implemented. Currently, wastes are segregated and placed in 55-gallon drums and sent to DRMO. Because the potential for improper disposal or accidental releases of hazardous constituents exists, further investigations are recommended for this site.

A Baseline Risk Assessment Work Plan was submitted as a supplement to the RFI Report. Preliminary data from the RFI indicates a risk based approach may be appropriate for closure at this site. GAEPD recently commented on the RFI Report and the Baseline Risk Assessment Work Plan. The Installation responded to comments and GAEPD approved the workplan. A Baseline Risk Assessment Report was submitted to GAEPD in 2005. Comments have been received and a response submitted to GAEPD.

CLEANUP STRATEGY

An IM Work Plan to address free product removal was submitted to GAEPD in 2006 and has been approved by GAEPD. A CAP will be prepared and submitted to GAEPD in 2006, to include groundwater monitoring of six wells and ongoing free product removal.

STATUS

REGULATORY DRIVER: RCRA C

RRSE: High

CONTAMINANTS OF CONCERN:
VOCs, SVOCs

MEDIA OF CONCERN: Soil,
Groundwater

Phases	Start	End
RFA	199101	199201
CS	199705	199710
RFI/CMS	199808	200509
IRA	200504	200611
CMI(C)	200609	200708
CMI(O)	200710	201009
LTM	201010	201109

RIP DATE: 200709

RC DATE: 201009

Installation Tank Rpr/Veh Maint Shops, cont.

Remediation most likely will consist of in situ chemical oxidation with ozone sparging. The system will consist of 35 permanent sparge points in the source area and 20 points in the downgradient area to create a barrier. The system will operate for three years.

FBSB-94

Installation Gas Stations

SITE DESCRIPTION

The following gas stations are suspected of having the potential for contamination based on the presence of leaking USTs and vehicle maintenance activities. All sites were referenced in the 1982 Installation Assessment, however, the document did not detail the potential for contamination from each site. Furthermore, site inspections were not conducted in association with this document. The Corps of Engineers, Savannah District, is executing a CAP Part B for FBSB-94C.

The Site Descriptions for the two ER,A funded Installation Gas Stations are on the following page.

STATUS

REGULATORY DRIVER: RCRA C

RRSE: High

CONTAMINANTS OF CONCERN:
VOCs, POL, Thallium

MEDIA OF CONCERN: Soil,
Groundwater, Surface water

Phases	Start	End
RFA	198201	198207
CS	199705	199710
RFI/CMS.....	200101	200502
CMI(C).....	200301	200509
CMI(O).....	200509	200809
LTM	200810	200909

RIP DATE: 200509

RC DATE: 200809

FBSB-94C

Installation Gas Stations (Site 1)

SITE DESCRIPTION

Building 3763 gas station was located approximately 400 feet south of the intersection of 11th Airborne Division Road and 187th Infantry Regiment Street in the Sand Hill area. The building was demolished and nothing remains but the concrete building foundation.

In 1993, a contractor conducted personnel interviews at this site in preparation for the 1993 draft of the IAP. According to installation personnel, each of the three 10,000-gallon capacity USTs, previously containing unleaded gasoline, have been reported as leaking. Soils in the vicinity of the USTs were excavated due to elevated petroleum hydrocarbons detected in subsurface soil samples collected. No groundwater investigation was implemented. In the past, this facility performed general vehicle maintenance (i.e., oil changing). Waste oil generated from these activities was deposited in an UST onsite. The facility is no longer in operation. All USTs, including the waste oil USTs, were removed from the sites in 1992.

A CAP, Parts A and B with an amendment were submitted to the GAEPD UST Program for review, and we have responded to their comments. The CAP has been approved and free product removal by dual-phase extraction began in FY05.

STATUS

CONTAMINANTS OF CONCERN: VOCs

MEDIA OF CONCERN:
Groundwater, Surface water

CLEANUP STRATEGY

Continue free product removal by dual-phase extraction with semi-annual monitoring of four wells to include surface water sampling until FY08. Site close-out and well abandonment is expected in FY09. Two rounds of in situ chemical oxidation may be required for destruction of free product.

FBSB-94D

Installation Gas Stations (Site 2)

SITE DESCRIPTION

Building 9051 gas station was located at the intersection of Marne Road and Bell Richards Street in the Kelley Hill area.

Three USTs and one Oil and Water Separator were removed in 1997. Contaminated soil was removed and disposed of at that time. The building was demolished in 1998. The area is now an asphalt parking lot for troop billets.

A RFI Work Plan was submitted to GAEPD in May 01. The work commenced on the RFI in the summer of FY01. The RFI Report was completed in FY02. Comments from the GAEPD were received and the installation is in the process of responding. Confirmatory sampling and a RFI Report Addendum was completed and submitted to GAEPD. Responses are pending.

The Installation has received a NFA.

STATUS

CONTAMINANTS OF CONCERN: POL,
Thallium

MEDIA OF CONCERN:
Soil, Groundwater

FBSB-95 Leaking USTs

SITE DESCRIPTION

Building 9060 (Fuel Point - FBSB-95H) is a military fuel dispensing site and motor pool in the Kelley Hill area of Fort Benning. Two leaking fuel USTs were removed and replaced in the early 1990s. The initial release occurred in the 1980s.

To address the soil and groundwater contamination, a Soil Vapor Extraction/Air Sparging Treatment System was installed in FY01. The system is currently operational.

CLEANUP STRATEGY

Injection of Oxygen Release Compound (ORC) in FY07 followed by two semi-annual GW monitoring events in FY07-08.

Site close-out and well abandonment of six wells are expected in FY09.

STATUS

REGULATORY DRIVER: RCRA I

RRSE: High

CONTAMINANTS OF CONCERN:
POL

MEDIA OF CONCERN: Soil,
Groundwater

Phases	Start	End
ISC	198811	198812
INV	198901	198902
CAP	199905	200101
IMP(C)	200102	200104
IMP(O)	200108	200809
LTM	200810	200909

RIP DATE: 200108

RC DATE: 200809

FBSB-99 Ordnance Shop

SITE DESCRIPTION

Building 223 (Ordnance Shop) is located on Kilgore Street. The site is surrounded by a security fence. The building was in use from the 1950s to the 1990s. Building 223 was first reported in the 1982 Installation Assessment of Fort Benning. Approximately 60 liters per month of solvents from Bldg 223 were reported in the Installation Assessment as being taken to the main heating plant for use as a fuel. The solvent was used for the cleaning of weapons. Typewriters were also cleaned at this facility by means of a chlorinated solvent. Approximately 300-380 liters of solvent was disposed into the sanitary sewer per month. There is a suspected high potential for leakage of contaminants from the sewer into the groundwater and soil.

The installation RCRA part B permit required a RFI to be performed at this site. The RFI investigation detected groundwater contamination at the Ordnance Shop in the form of chlorinated solvents. Tetrachloroethene, Trichloroethene and cis-1,2,-Dichloroethene were detected above USEPA risk based screening levels for tap water. Concentrations of toluene and the above listed compounds, above regulatory levels, were also found in the subsurface soils.

A RFI Report was sent to GAEPD for review and comment in January 2000. Further investigation of groundwater, soils and sediments was recommended at this site in order to better delineate the extent of contamination. A Baseline Risk Assessment was requested at this site.

Based on the results of the RFI, concentrations of TCE were found in downgradient groundwater monitoring wells in excess of the standard of five parts per billion. A Supplemental RFI was conducted at this site in conjunction with FBSB-26 and FBSB-64. FBSB-99 is likely to be a primary source of groundwater contamination at all three sites (FBSB-26, FBSB-64, and FBSB-99). Tetrachloroethene and cis-1,2,-Dichloroethene were also found in the groundwater at FBSB-99.

Interim Corrective Measures and soil removal (~3000 cubic yards) was completed during FY04. The Interim Corrective Measures report was submitted and approved by GAEPD.

STATUS

REGULATORY DRIVER: RCRA C

RRSE: High

CONTAMINANTS OF CONCERN:
Chlorinated Solvents

MEDIA OF CONCERN: Soil,
Groundwater

Phases	Start	End
RFA	198201	198207
CS	199705	199710
RFI/CMS.....	199901	200509
CMI(C).....	200510	200609
CMI(O).....	200610	200909
LTM	200910	201110

RIP DATE: 200610

RC DATE: 200909

FBSB-99

Ordinance Shop, cont.

The supplemental RFI and Baseline Risk Assessment Report were submitted to GAEPD. GAEPD reviewed the report; provided comments, and a response to these comments will be submitted to GAEPD in April 2006. A CAP was submitted to GAEPD, has been reviewed, and comments provided. A response to these comments will also be submitted to GAEPD in April 2006.

CLEANUP STRATEGY

The selected corrective action was a limited in-situ remediation using a hydrogen release compound followed by MNA. Semi-annual long-term monitoring will be conducted for nine ground water monitoring wells until FY11.

Limited land use controls restricting the use of ground water for drinking purposes will be implemented until remediation goals are achieved.

IRP No Further Action Sites Summary

AEDB-R #	Site Title	Documentation/Reason for NFA	NFA Date
FBSB-29	General Purpose Mag (Parks Range)	The 1992 preliminary site inspection for Fort Benning reported no contamination. Based on these findings, no further investigation is recommended for this site. Additionally this is an active site and does not qualify for funds under the IRP.	199201
FBSB-41	Exchange Service Oil (Bldg 1624-1625)	It was determined that these facilities were active sites and did not qualify under the ER,A Program. Both sites are currently being investigated by the installation using OMA funding. As a result NFA is planned for these buildings under the IRP Program.	199504
FBSB-52	Ammo Storage (Bldg 5962 thru 5988)	Since there is no indication that a release has occurred at this site and because the UST removal is presently covered under Fort Benning's UST program, no further RAs are planned for this site under the IRP program.	199208
FBSB-60	Pesticide Mixing Storage (Bldg 266)	The facility is currently an active pesticide mixing site. Based on the fact that this site is an active site, no further investigation under the IRP is planned.	199201
FBSB-61	Bldg 492 - PCB Spill	It has been determined that this site was mistakenly identified as a ER,A site and does not qualify under the ER,A program as an IRP site. NFA under the ER,A program is planned.	199201
FBSB-62	Battery Restoration (Building 1751)	Because no spills have been reported at this location and since there is no evidence of contamination, no further RAs under the IRP Program are planned for this site.	199507
FBSB-63	Landfill No. 1	Because the USAEHA geohydrologic study found no evidence of soil or groundwater contamination, no further response is planned at this site. The state of Georgia has concurred with this evaluation.	199201
FBSB-65	Landfill No. 3	The USAEHA Geohydrologic Study (No. 38-26-0817-88) indicated that no groundwater contamination had resulted from past onsite disposal practices. Therefore, no further investigations are recommended at this site. The state of Georgia has concurred with this evaluation.	199201

AEDB-R #	Site Title	Documentation/Reason for NFA	NFA Date
FBSB-67	Landfill No. 5	This site was being investigated concurrently with FBSB-88 (Old Fire Training Area), and FBSB-68 (Closed Landfill 6), which are in close proximity to this site. Based on the RFI results of all three sites (FBSB-88, -67, -68), it has been determined that this landfill is not a source of contamination. NFA was granted in 2005. All well abandonment will be included under FBSB-68 (Closed Landfill 6).	2005
FBSB-71	Landfill No. 9	Based on the results of the USAEHA groundwater study, NFA is planned for this site.	198803
FBSB-72	Landfill No. 10	The results of the investigation indicated that no contaminants above screening levels were found in groundwater. Also none of the compounds found in landfill soils or downgradient sediment samples exceeded the risk based screening criteria. The RFI Report recommended NFA, and was approved by the state.	200107
FBSB-73	Landfill No. 11	Neither the 1994 USAEHA SWMU investigation nor the 1987 USAEHA geohydrologic study (#38-26-0875-88), found significant groundwater contamination at this site. National Primary Drinking Water Standards (NPDWR) were not exceeded by any analytical parameter. As a result, no further RA is planned for this site.	198906
FBSB-74	Landfill No. 12	Based on the available site information and the USAEHA SWMU Investigation and groundwater studies, NFA is recommended at this site.	198708
FBSB-76	Landfill No. 14	Even though no action is planned at Landfill 14, GAEPD has directed the installation to determine the source of DDT groundwater contamination upgradient of this site. This will done using OMA not ER,A funding.	198708
FBSB-77	Landfill No. 15	Based on the results of the USAEHA groundwater study and the 1994 SWMU investigation, no further investigations are planned at this site.	198708
FBSB-78	Landfill No. 16	Based on the fact that NPDWR were not exceeded by any analytical parameter during USAEHA testing in 1987, no further investigations are recommended at this site.	198711

AEDB-R #	Site Title	Documentation/Reason for NFA	NFA Date
FBSB-80	Landfill No. 18	Based on the results of the 1987 USAEHA Geohydrologic Study and the 1994 USAEHA SWMU investigation, no further actions are planned for this site.	198803
FBSB-81	Landfill No. 19	Based on the results of the USAEHA Geohydrologic Study and the 1994 SWMU investigation, no further investigations are recommended at this site.	198711
FBSB-82	Landfill No. 20	The USAEHA Geohydrologic Study (No. 38-26-0817-88) prepared for Landfill Nos. 3, 9, 18, and 20 indicated that no groundwater contamination had resulted from past onsite disposal practices. Based on available site information, and because the landfill debris was removed and relocated, no further investigations are planned at this site.	198803
FBSB-83	Landfill No. 21	The USAEHA Geohydrologic Study (No. 38-26-0833) prepared for Landfill Nos. 2 and 21 indicated that no groundwater contamination had resulted from past onsite disposal practices. Based on available site information, and the fact that no groundwater contamination is occurring, no further actions or investigations are planned for this site.	199507
FBSB-85	Landfill No. 23	Since the USAEHA groundwater study indicated that contamination levels were within NPDWR standards and the 1994 SWMU investigation confirmed this, no further actions are planned for this site.	198906
FBSB-89	LF Adjacent to Toxic Agent Burial Site	Based on the findings of the 1993 USAEHA water quality investigation and the recently completed SWMU, NFA is planned for this site under the IRP.	199506
FBSB-90	LF, North End at Massey Rd	The installation decided to conduct a RFI on this site in 1997 using OMA funding. NFA is planned at this site under the IRP.	199507
FBSB-91	Installation Motor Repair Shop	The Installation has received a NFA for this site at GAEPD in FY05.	200505
FBSB-92	Installation Flam Matl Stge	Based on personal investigation and the lack of any discernible evidence of contamination, the probability that contamination exists at this site is small. Therefore no further action is planned under the IRP.	199507

AEDB-R #	Site Title	Documentation/Reason for NFA	NFA Date
FBSB-96	Main Mall Service Station	Recent sampling results indicate that all groundwater monitoring wells show concentrations of BTEX below the regulatory limit of 71.28 micrograms per liter of Benzene. The most recent sampling event took place in the summer of FY03. This site was designated NFA by GAEPD in Nov 2003.	200311
FBSB-97	Abandoned Drum Disposal Site	GAEPD approved the NFA in FY05.	200509
FBSB-98	Soil Contamination at Stockades	As a result of the RFI, it was determined that this site is not the source of POL contamination. GAEPD agreed that this site requires NFA.	200403

Initiation of IRP: 1982

Past Phase Completion Milestones

1982

- IRP Assessment Initiation - July

1987

- USAEHA Geohydrologic Surveys completed for all documented landfills - Dec.

1992

- Installation Preliminary Assessment - Jan.

1994

- IRA - Removal of USTs - Oct.
- RCRA Facility Assessment - Dec.

1996

- DES - Complete design for Main Mall - March
- DES - Complete design for Former Pesticide Storage Area - June
- LTM - Begin groundwater monitoring at landfills 7 and 8 - July
- CMI - Begin construction at Main Mall - Nov.
- CAPs for UST sites completed - Nov.

1997

- CMI - Begin remediation of Pesticide Storage Formulation Area - Feb.
- LTM - Begin groundwater monitoring of landfills 4 and 10 and 13 - March
- CMI - Completed Cap on Landfill 13 - August

1998

- CMI - Complete remediation at Former Pest Storage Formulation Area - March
- CMI - Complete construction of soil vapor extraction (SVE) system at Main Mall – March
- Operations & Maintenance - Begin SVE at Main Mall - May
- LTM - Begin LTM at Pesticide Storage - Feb.
- RFI - Begin RFI Install Tank Repair Shop - Nov.

1999

- RFI – Begin RFI at Stockade - August
- RFI – Begin RFI at Ordnance Shop - August
- RFI – Begin RFI at Landfill 8 - August

2000

- RFI – Begin RFI at Eng Field Maint Shop - Jan.
- RFI – Begin RFI at Instal Paint Facilities - Jan.
- RFI – Begin RFI at Landfill 4 - Feb.
- RFI – Begin RFI at Abandoned Drum Site - Feb.
- RFI – Begin RFI at Instal Motor Repair Shop – March

2002

- RFI - Begin RFI at Old Fire Training Area - Jan.
- RFI - Begin RFI at Landfill 5 - Jan.
- RFI - Begin RFI at Landfill 6 - Jan.

2003

- RFI - Begin Supplemental RFI at Landfill 6.
- RFI - Begin Supplemental RFI at Landfill 5.
- CMI(O) - Bldg. 9060.
- RFI - Begin Supplemental RFI at Ordnance Shop.
- RFI - Supplemental RFI at Landfill 2.

2004

- CMI - Begin Drum Removal at Abandoned Drum Disposal Site.
- LTM - Begin LTM at Landfill 8 - Jan.
- CMI(C) - Begin Corrective Action Plan for Eng Field Main Shop
- CMI (C) - Begin Corrective Action Plan for Landfill 6
- RFI - Begin Corrective Action Plan for Landfill 13
- LTM - Begin LTM for Pesticide Storage Facility
- RFI - Begin Corrective Action Plan for Old Fire Training Area
- CMI (C) - Begin CMI (C) phase for Installation Gas Stations

2005

- LTM - Installation Maintenance Repair Shop
- RFI - CAP at the Fixed Laundry Facility
- LTM - Begin LTM at the Installation Paint Facilities
- RFI - CAP at Landfill 2
- LTM - Begin LTM at Landfill 4
- RFI - Complete Risk Assessment/Submit RFI Report for LF#7
- CMI(C) - Begin CMI(C) at the Old Fire Training Area
- CMI(O) - Continue CMI(O) at Installation Gas Stations
- CMI(O) - Continue CMI(O) at Leaking UST sites
- IRA – Soil Removal at the Ordnance Shop
- IRA – Remove Soil from Abandoned Drum Disposal Site
- SI - Complete SI for MMRP

2006

- CMI(O) - Begin MNA at Fixed Laundry Facility
- CMI(O) - Begin MNA at Eng Fld Maint Shop
- CMI(O) Begin MNA at Landfill 2
- CMI(O)- Begin MNA at Landfill 6
- CMI(C)- Begin MNA at Landfill 8
- LTM- CAP Maintenance at Landfill 13
- LTM - Pesticide Storage Area
- CMI(O) - Begin MNA at Old Fire Training Area
- CMI(O) - Ongoing free product removal at Tank Auto Shop

2006, continued

- CMI(O) - Continue free product removal at Bldg 3763
- LTM - Continue LTM at Leaking UST site
- CMI(O) - Begin MNA at Ordnance Shop

Projected Record of Decision (ROD)/Decision Document (DD) Approval Dates:

FBSB-26 - 20060801
FBSB-39 - 20060801
FBSB-64 - 20060801
FBSB-68 - 20061001
FBSB-70 - 20070615

Projected Construction Completion Date of IRP: 2007

Schedule for Next Five-Year Review: TBD

Estimated Completion Date of IRP (including LTM phase): 2012

FORT BENNING IRP SCHEDULE

(Based on current funding constraints)

AEDB-R#	PHASE	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15+
FBSB-26	CMI(O)									
	LTM									
FBSB-39	CMI(O)									
	LTM									
FBSB-54	LTM									
FBSB-64	CMI(O)									
	LTM									
FBSB-66	LTM									
FBSB-68	CMI(O)									
	LTM									
FBSB-69	LTM									
FBSB-70	CMI(O)									
FBSB-75	LTM									
FBSB-86	LTM									
FBSB-88	CMI(O)									
	LTM									
FBSB-93	CMI(C)									
	CMI(O)									
	LTM									
FBSB-94	CMI(O)									
	LTM									
FBSB-95	IMP(O)									
	LTM									
FBSB-99	CMI(O)									
	LTM									

Prior Years Funds

Total Funding up to FY04: \$31,213K

Year	Site Information	Expenditures	FY Total
FY 05	RFI (FBSB-26)	\$85.5K	
	(FBSB-54)	\$18.1K	
	(FBSB-64)	\$87.0K	
	(FBSB-68)	\$49.5K	
	(FBSB-69)	\$30.0K	
	(FBSB-75)	\$55.6K	
	(FBSB-93)	\$18.0K	
	(FBSB-97)	\$25.1K	
	(FBSB-99)	\$74.0K	
	RA(C) (FBSB-68)	\$25.0K	
	(FBSB-39)	\$73.1K	
	(FBSB-88)	\$42.5K	
	(FBSB-94)	\$10.0K	
	(FBSB-93)	\$135.2K	
	LTM (FBSB-70)	\$96.9K	
	(FBSB-86)	\$37.5K	
	RA(O) (FBSB-94)	\$58.8K	
	(FBSB-95)	\$76.7K	\$998.5K

Total Prior Year Funds: \$32,211.5K

Current Year Requirements

Year	Site Information	Requirements
FY 06	RA(O) (FBSB-26)	\$139.4K
	(FBSB-39)	\$77.5K
	(FBSB-64)	\$122.2K
	(FBSB-68)	\$66.0K
	(FBSB-69)	\$28.5K
	(FBSB-88)	\$77.0K
	(FBSB-94)	\$55.0K
	(FBSB-95)	\$10.0K
	(FBSB-95)	\$90.0K
	(FBSB-94)	\$10.0K
	RA(C) (FBSB-70)	\$28.5K
	(FBSB-93)	\$14.2K
	(FBSB-93)	\$10.0K
	(FBSB-99)	\$103.0K
	LTM (FBSB-75)	\$10.0K
	(FBSB-75)	\$90.7K

IRP Costs

(FBSB-86).....\$31.0K..... **\$963.0K**

Total Future Requirements: \$ 4,406.0K

Total IR Program Cost (from inception to completion of the IRP): \$ 37,580.5K

FORT BENNING

Military Munitions Response Program

Total AEDB-R MMRP Sites/AEDB-R sites with RC: 2/0

AEDB-R Site Types

- 1 Disposal Pit/Dry Well
- 1 Unexploded Munitions/Ordnance

Most Widespread Contaminants of Concern: Metals, Explosives, UXO

Media of Concern: Soil

Completed REM/IRA/RA: None to date

Total MMRP Funding

Prior years (up to FY05):	\$ 417.4K
Current Year (FY06):.....	\$ 0
<u>Future Requirements (FY07+):</u>	<u>\$1,186.0K</u>
Total:	\$1,603.4K

Duration of MMRP

Year of MMRP Inception: 2002
Year of MMRP RC: 2014
Year of MMRP Completion Including LTM: 2014

MMRP Contamination Assessment

MMRP Contamination Assessment Overview

Two separate sites were identified during the SI phase, the Grenade Munitions Burial Site, and the Grenade and Bayonet Court.

The first site the Grenade Munitions Burial Site did not show evidence of munitions and explosives of concern (MEC) or munitions debris on the surface or subsurface. Only one explosive Nitrobenzene was discovered in soil samples at concentrations below USEPA Region 9 Residential and Industrial PRGs. One metal, aluminum was found in soil exceeding the USEPA Region 9 Industrial Preliminary Remediation Goals (PRGs). Several metals and inorganic compounds were also detected above USEPA Region 9 Residential PRGs and or Fort Benning background 95% upper tolerance limits (UTLs). No explosives or metals were detected above USEPA Region 9 Soil Screening Levels. No explosives were detected in groundwater samples, arsenic and iron were detected in groundwater exceeding USEPA Region 9 Tap Water PRGs, and however both values are below the 95% UTL.

The Grenade and Bayonet Court did not show evidence of MEC or MEC scrap on the surface. A geophysical survey identified a total of 1371 anomalies. No explosives were detected in any of the soil samples. Arsenic was detected in the soil at concentrations exceeding the USEPA Region 9 Industrial PRG. Aluminum, iron, lead, manganese, thallium and vanadium were detected at concentrations exceeding the USEPA Region 9 PRGs. Several metals and inorganic compounds were found in samples above the Fort Benning 95% UTLs. No metals were detected above USEPA Region 9 soil screening levels.

MMRP Cleanup Exit Strategy

The installation plans to complete RI/FS for FTBN-001-R-01 by 2008 and execute follow on phases/actions as required.

Since the results of the expanded SI failed to detect any evidence of MEC or MC at FTBN-002-R-01, a NFA will be requested for the entire 25 acre Grenade and Bayonet Court site. No LTM is expected.

MMRP Previous Studies

2005

- Final Site Inspection Report Fort Benning, Fort Benning, Georgia. April 2005, prepared for Baltimore District, US Army Corps of Engineers, by Malcolm Pirnie Inc, Baltimore Md.

2006

- Grenade and Bayonet Court Extended Anomaly Investigation, Report, Fort Benning, Georgia, April 2006, prepared for Baltimore District, US Army Corps of Engineers, by Malcolm Pirnie Inc, Baltimore Md.

FORT BENNING

Military Munitions Response Program Site Descriptions

FTBN-001-R-01

Grenade Munitions Burial Site

SITE DESCRIPTION

The Grenade Munitions Burial Site is a 28.8-acre site located in the southwestern portion of the installation, east of the Lawson Army Airfield. The site was previously identified in the MMRP SI Historic Records Review as a 44.7-acre area. However, it was determined that the site should be reduced to encompass only the portion of the area on which removal actions and Explosive Ordnance Disposal (EOD) responses have been conducted. Thus, the site boundaries were changed and the acreage reduced to 28.8 acres.

The site is currently overlain by the new Ranger Barracks Complex and a portion of the Whole Barracks Renewal Complex. The Grenade Munitions Burial Site was used as a disposal area for grenades and other various munitions types during the 1920s – 1950s. Buried munitions originated from an ammunition storage area adjacent to the northern edge of the site. Three separate removal actions and five EOD response calls uncovered burial pits containing over 1500 grenades and other munitions. All of the burial pits were discovered during construction activities at the site between May 1998 and August 2000. Munitions removed from the Grenade Munitions Burial Site include Mk2 hand grenades, M19 smoke rifle grenades, 4" stokes WP mortar, M21 practice landmine, 37-mm projectile, blasting caps, time fuzes, igniters, bulk explosives, and small arms ammunition.

A RI/FS has been recommended for 25.4 acres of this site based on the results of the SI activities at this site. The RI/FS should focus on identifying potentially buried MEC items with additional sampling for munitions constituents (MC) if additional MEC burials are uncovered. NFA is being recommended for the remaining 3.4 acres of this site that is covered by buildings.

CLEANUP STRATEGY

The RI/FS will be completed in FY2008.

STATUS

REGULATORY DRIVER: CERCLA

RAC SCORE: High Risk

CONTAMINANTS OF CONCERN:
Metals, Explosives, UXO

MEDIA OF CONCERN: Soil

Phases	Start	End
PA.....	200202	200305
SI	200309	200504
RI/FS	200710	200809
RD	201210	201304
RA(C)	201305	201409

RC DATE: 201409

FTBN-002-R-01

Grenade and Bayonet Court

SITE DESCRIPTION

The Grenade and Bayonet Court is a 25-acre site located in the southwestern portion of the installation, north of Dixie Road and between Ingersoll Street and Lumpkin Road. The site was identified on historical maps and aerial photographs between 1920 and 1964. The name of the site on installation maps varies between Grenade and Bayonet Court, Bayonet Court, and the Norton Court. No documentation was found about the munitions types used or activities that took place at the site. Based on the location and proximity to buildings and roads, the site is assumed to have been used as a practice hand grenade course.

NFA is recommended for four acres of this site that correspond to the area currently covered by active construction. The entire area has been graded, with no undisturbed soil remaining.

Further investigation was recommended for 21 acres of this site based on results of the geophysical survey conducted as part of the SI activities. An expanded SI was performed in December of 2005. The investigation focused on the subsurface anomalies found during the previous geophysical survey. The expanded SI failed to detect or uncover any evidence of MEC or MC.

CLEANUP STRATEGY

Since the results of the expanded SI failed to detect any evidence of MEC or MC, a NFA will be requested for the entire 25 acre Grenade and Bayonet Court site. No LTM is expected.

STATUS

REGULATORY DRIVER: CERCLA

RAC SCORE: Low Risk

CONTAMINANTS OF CONCERN:
Metals, Explosives, UXO

MEDIA OF CONCERN: Soil

Phases	Start	End
PA.....	200202	200305
SI	200309	200504
RI/FS	200710	200809
RD	201210	201304
RA(C)	201305	201409

RC DATE: 201409

Initiation of MMRP: 2002

Past Phase Completions:

2003

- PA Completion at FTBN-001-R-01 and FTBN-002-R-01

2005

- SI Completion at FTBN-001-R-01 and FTBN-002-R-01

Projected ROD/DD Approval Dates: TBD

Projected Construction Completion: 2014

Schedule for Five Year Reviews: TBD

Estimated Completion Date of MMRP including LTM: 2014

FORT BENNING MMRP SCHEDULE

(Based on current funding constraints)

AEDB-R#	PHASE	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15+
FTBN-001-R-01	RI/FS									
	RD									
	RA(C)									
FTBN-002-R-01	RI/FS									
	RD									
	RA(C)									

Prior Years Funds

Total Funding up to FY04: \$408K

Year	Site Information	Expenditures	FY Total
FY 05	SI	\$9.4 K	\$9.4 K

Total Prior Year Funds: \$417.4K

Current Year Requirements

Year	Site Information	Requirements	FY Total
FY 06	\$0	\$0

Total Requirements FY06: \$0

Total Future Requirements: \$1,186 K

Total Program Cost (from inception to completion of the MMRP): \$1,603.4 K

In February 1995 Fort Benning initiated a CRP, to provide the public with the latest information concerning installation environmental issues of concern. Additionally the CRP was implemented to improve lines of communication between Fort Benning and the residents of Columbus and Phenix City.

As part of the CRP, residents of the Fort Benning and Columbus/Phenix City communities were asked if they were interested in having a RAB established, or in being selected as a member of a RAB. After all the responses were reviewed and the CRP was completed it was determined that there was not enough sustainable community interest in creating a Fort Benning RAB. Respondents repeatedly claimed that they trusted Fort Benning officials and the US Army to do what was necessary in cleaning up environmental contamination.

The CRP was updated in October 1997, January 2000, April 2004, and more recently in January 2006. The public was again queried concerning whether or not there was sufficient community interest in forming a RAB. The overall judgment was that there was still not enough local community interest in forming a RAB. In 2008 the CRP will be updated again. If the local community indicates an interest in establishing a RAB, one will be formed.